

BEST AVAILABLE COPY**REMARKS**

Applicant wishes to thank the Examiner for considering the present application.

In the Office Action dated November 18, 2004, claims 1-15 are pending in the application.

Applicant respectfully requests the Examiner for reconsideration.

The Examiner rejected Claims 1, 3, 5, 7, and 12 under 35 U.S.C. §112, second paragraph. Applicant respectfully submits that the word "unique" is used in the specification and in the original claims. For example, Claims 3 and 4 include the word "unique." Corresponding description to the word "unique" is found on page 10, lines 5-10, and page 11, line 6. Applicant respectfully submits that the word "unique" has antecedent basis in the specification and therefore these claims are believed to be allowable.

Claims 1-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable by *Durst* ("TCP Extensions for Space Communications" (1997)) in view of *Priore* ("A General Purpose Data Processing System Simulator for Satellite Ground Stations (1997)) in view of *Gold* (5,808,921). Applicant respectfully traverses.

Claim 1 is directed to a method of simulating the operation of a spacecraft that includes requesting a connection to one a plurality of simulated ground stations, generating range server name, in response to the range server name, generating server location parameters and instantiating a range server dedicated to a single ground station. The method further includes calculating the range data for each of the plurality of simulated ground stations and providing the range data for one of the plurality of simulated ground stations. The Examiner is directed to page 2 of the present application which describes the need for the present system. This paragraph states that there is a need to simulate the operation of various ranging and antenna systems at various times to provide a complete simulation of the system. Ranging is performed in an actual application by two or more ground stations that are used to improve the determination of the position of the spacecraft.

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Applicant respectfully submits that the Examiner is forming a piece-meal, hindsight reconstruction of the present application. However, Applicant submits that even this attempt at a hindsight reconstruction does not form the present invention. None of the three references teaches multiple ground stations. Claim 1 includes a step of calculating simulated range data for each of the plurality of simulated ground stations. By providing simulated data for each of the plurality of simulated ground stations, a more thorough simulation of the entire system may be performed. Claim 1 also includes providing the range data for one of the plurality of simulated ground stations in response to a unique port address. This infers the simulation aspect of the present invention. For this, the Examiner points to the *Gold* reference. Applicant respectfully submits that the *Gold* reference does not teach multiple ground stations. In fact, the Examiner points to Col. 4, lines 45-50, for a plurality of simulated ground stations. Applicant has reviewed this section and respectfully submits that only a replication of system response delays are provided and that no teaching or suggestion is provided for a plurality of ground stations, let alone requesting connection to one of a plurality of ground stations.

The *Priore* reference is also set forth for various teachings including generating a range server name corresponding to one of a plurality of simulated ground stations. The *Priore* reference is a simulator for a satellite ground station. That is, the *Priore* system is a simulator for a ground station. Applicant respectfully submits that no teaching or suggestion is provided in the *Priore* reference for calculating simulated range data for each a plurality of simulated ground stations and providing the range data for one of the plurality of simulated ground stations in response to a unique port address. That is, the *Priore* reference is directed to the operation of a single ground station. The configuration set forth in the *Priore* reference does not act as a simulation system for a spacecraft system that includes a plurality of ground stations.

The *Durst* reference is also cited for various teachings. The *Durst* reference sets forth a method for communicating for space communications. No teaching or suggestion is provided for multiple ground stations. Thus, "calculating simulated range data for each of the

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provided for multiple ground stations. Thus, "calculating simulated range data for each of the plurality of simulated ground stations" is not taught or suggested in this reference. Therefore, the step of "providing the range data for one of the plurality of simulated ground stations in response to a unique port address" is also not taught or suggested in the reference. The Examiner points to page 389, Introduction, 2nd paragraph, and page 392, Fig. 1. As can be best seen in Fig. 1 of page 392, only one receiving ground station is illustrated. The *Durst* reference was set up to test a communication protocol rather than simulating a spacecraft system using multiple ground stations. Applicant therefore respectfully requests the Examiner to reconsider the rejection of Claim 1.

Likewise, Claim 7 is a method claim that includes similar limitations with respect to the plurality of ground stations. Applicant therefore respectfully requests the Examiner to reconsider the rejection of Claim 7 as well.

Claims 2-6 and 8-10 are dependent upon allowable independent claims and are therefore believed to be allowable for the same reasons set forth above.

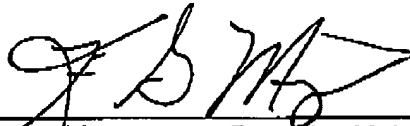
Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable by *Gold* in view of *Priore*. Claim 13 is a spacecraft emulation system that includes among other things range data generator for generating simulated range data for a plurality of simulated ground stations and a range server coupled to the range data generator and the spacecraft status and control client having the simulated range data for said plurality of simulated ground stations therein. The range server provides the simulated range data to the spacecraft status and control client. As mentioned above, neither the *Gold* reference nor the *Priore* reference teaches a range data generator for generating simulated range data for a plurality of simulated ground stations. Thus, Claim 13 is also believed to be allowable.

Claims 14-15 depend from Claim 13 and therefore these claims are also believed to be allowable.

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In light of the above amendments and remarks, applicant submits that all objections and rejections are now overcome. Applicant has added no new material to the application by these amendments. The application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney. Please charge any fees required in the filing of this amendment to Deposit Account No. 50-0476.

Respectfully submitted,



Kevin G. Mierzwa, Reg. No. 38,049
Artz & Artz, P.C.
28333 Telegraph Road, Suite 250
Southfield, MI 48034
(248) 223-9500
(248) 223-9522

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